CLAIMS

1. A reclosable bag comprising a receptacle having a mouth, a string zipper joined to said receptacle at said mouth, said string zipper comprising first and second mutually interlockable zipper parts, a slider mounted to said string zipper to cause said first and second zipper parts to separate when said slider is moved in one direction along said string zipper and to cause said first and second zipper parts to interlock when said slider is moved in an opposite direction along said string zipper, and a header panel that is suspended between two zones of attachment generally located at opposite ends of said mouth.

2. The bag as recited in claim 1, wherein said receptacle comprises first and second walls, respective portions of said first wall, said first zipper part and said header panel being joined together in said zones of attachment.

3. The bag as recited in claim 2, wherein said first and second zipper parts are fused together adjacent said zones of attachment.

4. The bag as recited in claim 1, wherein said first zipper part comprises a first base and a first closure profile projecting from said first base, and said second zipper part comprising a second base and a second closure profile projecting from said second base and engageable said first closure profile and said receptacle comprises first and second walls, said first wall comprising a marginal portion joined to said first base of said first zipper part, and said second wall comprising a marginal portion joined to said second base of said second zipper part.

5. The bag as recited in claim 4, wherein said header panel comprises first and second portions joined to said second wall, and a third portion not joined to said second wall, said third portion being disposed between said first and second portions and including a portion disposed adjacent said slider.

6. The bag as recited in claim 5, wherein said first portion of said header panel is disposed near a first corner of said header panel, said second portion of said header panel is disposed near a second corner of said header panel, and said third portion of said header panel comprises a marginal portion adjacent a free edge of said header panel, said marginal portion connecting said first and second corners of said header panel.

7. The bag as recited in claim 5, wherein said first and second zipper parts are fused together at first and second ends of said string zipper shapes that form first and second slider end stops respectively, said first portion of said header panel being disposed adjacent said first slider end stop, and said second portion of said header panel being disposed adjacent said second slider end stop.

8. The bag as recited in claim 7, wherein said free edge provides clearance for said slider during transit of said slider between said first and second slider end stops.

9. The bag as recited in claim 1, wherein said header panel has a length equal to the width of said receptacle.

10. The bag as recited in claim 1, wherein said header panel comprises first and second discontinuities.

11. The bag as recited in claim 10, wherein said discontinuities are holes or slits.

12. A reclosable bag comprising:

a zipper comprising first and second zipper strips, said first zipper strip comprising a first base and a first closure profile projecting from said first base, and said second zipper strip comprising a second base and a second closure profile projecting from said second base and engageable with said first closure profile;

a receptacle comprising first and second walls, said first wall comprising a marginal portion joined to said first base of said first zipper strip, and said second wall comprising a marginal portion joined to said second base of said second zipper strip;

a slider mounted on said zipper and movable in opposite directions for opening and closing said zipper; and

a flap comprising first and second portions joined to different portions of said joined second wall and second base, and a third portion not joined to said joined second wall and second base, said third portion being disposed between said first and second portions and including a portion disposed adjacent said slider.

13. The bag as recited in claim 12, wherein said first portion of said flap is disposed near a first corner of said flap, said second portion of said flap is disposed near a second corner of said flap, and said third portion of said flap comprises a marginal portion adjacent a free edge of said flap, said marginal portion connecting said first and second corners of said flap.

14. The bag as recited in claim 12, wherein said first and second zipper strips are fused together at first and second ends of said zipper in shapes that form first and second slider end stops respectively, said first portion of said flap being disposed adjacent said first slider end stop, and said second portion of said flap being disposed adjacent said second slider end stop.

15. The bag as recited in claim 14, wherein said free edge provides clearance for said slider during transit of said slider between said first and second slider end stops.

16. The bag as recited in claim 12, wherein said flap comprises first and second discontinuities.

17. The bag as recited in claim 16, wherein said discontinuities are holes or slits.

18. A method of manufacture comprising the following steps:

(a) folding a web of bag making film so that a first portion of said web on one side of said fold has an extension portion that extends beyond an edge of a second portion of said folded web;

(b) joining a back of a first flangeless zipper strip to said first web portion along a first zone of joinder before or after said folding step, said first zone of joinder being proximate to, but not on said extension portion;

(c) joining a back of a second flangeless zipper strip to said second web portion along a second zone of joinder before or after said folding step, said second zone of joinder being proximate to said edge;

(d) aligning said first flangeless zipper strip with said second flangeless zipper strip;

(e) removing said extension portion of said web;

(f) inserting sliders at spaced intervals along said aligned first and second flangeless zipper strips; and

(g) attaching said extension portion at regular intervals along one of said first and second zones of joinder to form respective zones of attachment.

19. The method as recited in claim 18, wherein said removing step comprises cutting said extension portion adjacent said first flangeless zipper strip.

20. The method as recited in claim 18, further comprising the step of forming first and second discontinuities in said extension portion.

21. The method as recited in claim 18, wherein step (a) is performed after step (b) and before step (c), further comprising the step of interlocking said first and second flangeless zipper strips prior to step (b).

22. The method as recited in claim 18, wherein steps (b) and (c) are performed after step (a), further comprising the step of interlocking said first and second flangeless zipper strips and inserting said interlocked first and second flangeless zipper strips between said first and second web portions prior to steps (b) and (c).

23. The method as recited in claim 18, wherein steps (b) and (c) are performed before step (a), further comprising the step of interlocking said first and second flangeless zipper strips after step (a).

24. The method as recited in claim 18, further comprising the step of fusing said first and second flangeless zipper strips together at regular intervals therealong to form shapes having portions that will function as slider end stops, said fusing step being performed prior to step (g), said zones of attachment being respectively disposed adjacent said fused portions of said first and second flangeless zipper strips.

25. The method as recited in claim 24, further comprising the following steps:

sealing said folded web crosswise at regular intervals; and

severing individual packages by cutting said folded web and said fused portions of said first and second flangeless zipper strips at regular intervals, wherein the cut lines generally intersect the respective zones of attachment formed in step (g).

26. The method as recited in claim 18, further comprising the step of trimming said edge of said web after said web has been joined to said second flangeless zipper strip.

27. A method of manufacturing a reclosable bag, comprising the following steps:

(a) arranging and sealing film material to form a receptacle, said receptacle having an interior volume and a mouth for accessing said interior volume;

(b) prior to completion of said receptacle, joining opposing portions of said film material, that will form said mouth of said receptacle, to respective backs of first and second flangeless zipper strips, thereby forming first and second zones of joinder;

(c) aligning said first and second flangeless zipper strips with each other;

(d) after steps (b) and (c), mounting a slider onto said aligned first and second flangeless zipper strips; and

(e) attaching first and second portions of a strip of film material at first and second locations along said first zone of joinder, said attached portions being disposed along one edge of said strip with spacing therebetween, and said slider being located between said attached portions of said strip of film material.

28. The method as recited in claim 27, further comprising the step of cutting said film materials and said first and second flangeless zipper strips along first and second cut lines generally orthogonal to a longitudinal axis of said first and second flangeless zipper strips, said first and second cut lines intersecting said attached portions of said strip of film material.

29. The method as recited in claim 27, further comprising the step of forming first and second discontinuities in said strip of film material.

30. The method as recited in claim 27, further comprising the step of fusing said first and second flangeless zipper strips together to form shapes having portions that will function as slider end stops, said fusing step being performed concurrently with step (e) in one operation by application of energy.

31. The method as recited in claim 27, wherein the energy applied is ultrasonic wave energy.

32. The method as recited in claim 27, further comprising the step of trimming said film material in the vicinities of said first and second zones of joinder after step (b) has been performed.

33. The method as recited in claim 27, wherein step (a) comprises the following steps:

folding a web of said film material so that a first portion of said web on one side of said fold has an extension portion that extends beyond an edge of a second portion of said folded web; and

removing said extension portion of said web.

34. The method as recited in claim 33, wherein the strip of film material attached in step (e) is said previously removed extension portion.

35. The method as recited in claim 34, further comprising the steps of intermittently advancing said folded web with said joined first and second flangeless zipper strips along a first pathway and intermittently advancing said removed extension portion along a second pathway in parallel with said first pathway, wherein said attaching step comprising the following steps:

guiding said advancing web and extension portion to respective positions whereat a portion of said extension portion overlaps a portion of said first flangeless zipper strip; and

while said web and extension portion are stopped, joining said overlapping portions of said extension portion and said first flangeless zipper strip.

36. The method as recited in claim 35, wherein said step of joining said overlapping portions comprises applying sufficient ultrasonic wave energy to fuse said first and second flangeless zipper strips together in the region of overlap.

37. A reclosable bag comprising a receptacle having a mouth, first and second zipper strips installed in said mouth, said first and second zipper strips being fused at opposing ends thereof to form first and second slider end stops and being mutually interlockable between said first and second slider end stops, a slider mounted to said first and second zipper strips and selectively movable between said first and second slider end stops to cause said first and second zipper strips to separate or interlock, and a header panel comprising a first portion attached to said first slider end stop, a second portion attached to said second slider end stop, and a free third portion extending between said attached first and second portions and disposed adjacent said first zipper strip, wherein said third portion of said header panel does not interfere with movement of said slider.

38. The bag as recited in claim 37, wherein said first portion of said header panel is disposed near a first corner of said header panel, said second portion of said header panel is disposed near a second corner of said header panel, and said third portion of said header panel comprises a marginal portion adjacent a free edge of said header panel, said marginal portion connecting said first and second corners of said header panel.

39. The bag as recited in claim 37, wherein said header panel comprises at least one opening or slit.

40. An apparatus comprising:

a knife arranged to continuously sever a strip of film material from a web of film material along a line adjacent and parallel to a zipper strip of a zipper joined to said web each time said web is advanced;

a slider insertion device for inserting successive sliders on the zipper at spaced intervals therealong after each advance of said web, said slider insertion device being located downstream of said knife;

an ultrasonic welding device for deforming said zipper at spaced intervals therealong, said ultrasonic welding device being located downstream of said slider insertion device and comprising an ultrasonic transducer; and

means for guiding said severed strip of material from said knife to a position whereat a portion of said strip is disposed between said ultrasonic transducer and said zipper without said strip interfering with operation of said slider insertion device, said strip portion being fused to said zipper by said ultrasonic welding device when said zipper is deformed.

41. The apparatus as recited in claim 40, further comprising means for forming at least one hole or slit in said strip portion, said forming means being located downstream of said ultrasonic welding device.